



This form was created to offer a simplified way of showing compliance with the state-mandated Energy Code for residential structures. The Energy Code applies to all new construction, additions, and remodels of residential and commercial buildings. The Energy Code went into effect September 1, 2002. The goal of the state law is to reduce air pollutant emissions, to moderate future electric power demand, reduce energy costs, and to make buildings more energy efficient overall.

1) Name: _____ 2) Phone: (_____)_____	4) Am I Exempt? My project is... (<i>check if applicable</i>) <input type="checkbox"/> A historical building (<i>provide documentation</i>) <input type="checkbox"/> Work that does not affect the building envelope or the mechanical systems <input type="checkbox"/> An unconditioned building / portion of a building <i>If so, you are exempt. Attach form to the plans. If not, then continue.</i>
3) Project Address: _____	
5) Type of Work (<i>check all that apply</i>) <input type="checkbox"/> New Construction <input type="checkbox"/> Addition _____ Sq. Ft. added <input type="checkbox"/> Remodel or <input type="checkbox"/> Repair	6) Type of Residence (<i>check one</i>) <input type="checkbox"/> Residential A-1 (1-2 Family Dwelling) <input type="checkbox"/> Residential A-2 (3+ Family Dwelling) (up to three stories)
7) Can I use this form? (<i>fill out formula</i>) New glazing _____ sq.ft. ÷ New exterior wall _____ sq.ft. x 100 = _____ %glazing	
<div style="display: flex; justify-content: space-between;"> <div> a) For an A-1 residence the glazing cannot exceed 15% b) For an A-2 residence the glazing cannot exceed 25% </div> </div>	
8) Insulation Walls (<i>check one</i>) <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div><input type="checkbox"/> Wood Frame = R-11</div> <div><input type="checkbox"/> Steel Frame (<i>circle one below</i>) (R-11+R-5) (R-15+R-4) (R-21+R-3)</div> <div><input type="checkbox"/> Mass Walls = R-4.8</div> </div>	
Constant Insulation requirements a. Floors over unconditioned space = R-11 b. Floors over outside air = R-19 c. Ceilings = R-19	
9) Air Conditioning / Heating Equipment <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> A/C system with ducts <input type="checkbox"/> Other </div> <div> <input type="checkbox"/> 10 SEER w/ R-8 Duct insulation in attics <input type="checkbox"/> 12 SEER w/ R-6 Duct insulation in attics </div> </div>	

Part III - Instructions:

This form is designed to show compliance with the Houston Energy Code using the prescriptive methods in Chapter 6 of the 2000 International Energy Conservation Code (IECC) or Chapter 11 of the International Residential Code (IRC). This form applies to work that affects the building envelope and/or heating and cooling systems.

Building envelope is defined as any component of a building that separates conditioned space and unconditioned space, including walls, ceilings, and floors.

Conditioned space is comprised of any area where heating and/or cooling is directly or indirectly supplied.

- 1) Enter the name of the person filling out the form. This person is the person we will contact for questions regarding the form and is the person responsible for the information on the form regarding the project.
- 2) Enter the phone number of the person completing the form. If the plan analyst has questions they will need to contact the person directly responsible for the form.
- 3) Enter the address where the construction is taking place.
- 4) This section is used to determine whether your project is exempt from compliance. A *historical building* is defined as any building that has received a historical designation from a government entity. *Work that does not affect the building envelope* would include work on the interior walls. If the work affects the exterior walls then you are required to comply. A *mechanical system* is the air conditioner and furnace. If your project involves an *unconditioned* (not mechanically heated or cooled) building or portions of a building, then you do not have a *building envelope* and you are exempt.
- 5) Check the box next to the type of work being performed, if doing an addition enter the number of square feet being added.
- 6) Check the box next to **A-1** if your project involves a one or two family residential building. Check the box next to **A-2** if your project involves a residential structure with 3 or more dwellings (i.e. townhouses), or a multi-family residential building (i.e. apartments) up to three stories in height. If you are doing work on a project that does not meet these descriptions STOP – Please complete the form named “Energy Code Compliance Form”.
- 7) Enter the values into the formula to determine whether your project can use the simplified method. *Glazing* means glass windows, doors or skylights. To obtain the percentage of glazing divide the *new glazing* area by the total area of *new exterior wall* space. This will give you your % glazing value. For doors with less than 50% glazing, use the exact area of the glass. If the glass is greater than 50% of the door area, you must count the entire area of the door as glazing. This method of compliance limits the percentage of glazing according to the building type. For A-1 residential this percentage cannot exceed 15%, and for A-2 residential the percentage cannot exceed 25%. If your glazing percentage is in excess of these values then you cannot use the simplified prescriptive compliance method. You will be required to use another compliance method and must complete the “Energy Code Compliance Form”.
- 8) Your walls must be insulated according to the type of wall. Check the applicable type of wall that your project will be using. If you are using steel walls circle one of the insulation requirements. The values are listed as (R-value + R-value). The first R-value represents the cavity insulation requirement. The second R-value represents the sheathing insulation requirement. You must install both types of insulation when working with steel frame walls. Floors shall be insulated to either R-19, if it is over outside air (i.e. on blocks) or R-11, if it is over unconditioned space (i.e. over an enclosed ventilated crawlspace). In using this method your ceilings must be insulated to R-19. Blown in insulation requires an installer’s certificate available on site with depth markers located every 300 sq. ft.
- 9) If you checked that a new A/C system with ducts is to be installed, then the SEER is needed to determine minimum duct insulation. If you are adding, changing, or doing no work to the mechanical system check “Other”.

Part IV – General Notes. This part details other general and technical requirements that apply when using this method.

A. Mechanical Equipment. Mechanical equipment shall meet the following minimum efficiency requirements:

Equipment Type	Minimum Performance
Air cooled heat pumps heating mode < 65,000 Btu/h cooling capacity	Split systems 6.8 HSPF Single package 6.6 HSPF
Gas fired or oil fired furnace < 225,000 Btu/h	AFUE 78%
Gas fired or oil fired steam and hot water boilers < 300,000 Btu/h	AFUE 80%
Air cooled air conditioners and heat pumps cooling mode < 65,000 Btu/h cooling capacity	Split systems 10.0 SEER Single package 9.7 SEER

- HVAC Piping shall be insulated in accordance with the applicable table of the code, which will vary according to pipe size and fluid temperature from .75” to 3.5”.
- Ducts shall be insulated.

B. Glass and Doors. The following requirements shall be maintained for efficiency requirements:

Glass/Windows: 1. Maximum U-factor = .75

Doors: 1. Maximum U-factor = .35

2. Maximum SHGC = .40

2. Air infiltration = (sliders) 0.3 cfm/sq ft.

3. Maximum air infiltration = .3 cfm/sq ft

(swinging) 0.5 cfm/sq ft.

****All windows must have an approved label showing the required information or shall show compliance by other means.****

C. Swimming Pools. Pools are required to have time clocks. Heated pools shall have on/off switches for the heaters and a pool cover.